COMMANDER'S HATCH

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Force Development — Where We Are Headed

In a previous edition of the Commander's Hatch, I talked about the vision for the Armored Force which implied that we must forge the finest mounted combat force in the world, capable of winning decisively throughout the spectrum of combat. I firmly believe that vision of the future. To achieve it, we must have the best combination of soldiers, equipment, training, doctrine, leadership, and organization that we can muster.

This Commander's Hatch will address the equipment and organizational aspects of the equation and describe the direction we are headed over the next decade.

Over the past two years, we have conducted three Armor Caucuses, where the Armor Center presented to senior Armor leaders a proposed blueprint of where the Armor Force should go and how we should get there. Many of the resulting decisions were incorporated into our Tank Modernization Strategy that defines capabilities specifically tailored for Force XXI and beyond.

COL Dave Cowan's recent article in the May-June issue of *ARMOR* provides highlights of the Tank Modernization Plan. Other caucus decisions galvanized a scout strategy.

A key component of Senior Armor Leader guidance is that the follow-on to Abrams will not be an evolutionary derivative of the M1 platform. Instead, we will develop a Future Combat System (FCS) for fielding in the 2015-2020 time frame that will provide the leap ahead capabilities required for battlefield supremacy well into the 21st Century. We are now defining a Mission Need Statement for a Future Combat System. The following goals reflect what is feasible and a starting point for focusing operational and engineering analysis:

- Light enough to permit at least two systems for transport on one C17.
- Sensors and lethality to detect and destroy *any* target with a near perfect probability of hit/kill at ranges beyond an enemy's capability.
- A non-line-of-sight capability that will dramatically increase the task force commander's battlespace and combat power.
- An integrated survivability system will make the system nearly immune to enemy weapons.
- An advanced propulsion system that provides dash speeds in excess of 100 kph and requires significantly less fuel over time than the Abrams.
- No more than half the logistical support now required to support the Abrams.
- Fully embedded training, and ease of system operation.

Senior Armor Leaders also endorsed a new scout modernization strategy that consists of the near-term Long Range Advanced Scout Surveillance System (LRAS3) and the follow-on Future Scout and Cavalry System (FSCS).

LRAS3 is a line-of-sight sensor that will allow real-time target detection and identification, and target location using second-generation FLIR, high-definition TV, a built-in, eye-safe laser range finder, and integrated GPS.

The Future Scout and Cavalry System (FSCS) will be the pre-eminent reconnaissance platform for Force XXI and Army After Next operations. An extraordinary collaborative program between the U.S. and the United Kingdom is currently taking shape and will serve as a model for acquisition streamlining. Due to be fielded by

2007, FSCS will take the place of the HMMWV with LRAS3 and the M3A3 Bradley.

FSCS requirements include full digitization, long-range multi-spectral sensors, aided target detection and identification, fusion of data from internal sensors and external intelligence sources, high transportability and tactical mobility, survivability through signature management and modular armor, and a medium caliber self-defense gun.

The mast-mounted sensor package will increase survivability and reconnaissance capabilities. This system will be tied in to the digitized command and control system to provide commanders and precision weapon systems with exact enemy locations, intentions, and strength at very long ranges.

The Armor Center is also the proponent for battle command at brigade and below. Force XXI Battle Command Brigade and Below (FBCB2), a battle command information system, completes the Army Battle Command System (ABCS) information flow process from brigade to platform/individual soldier, and across all platforms within the brigade task force.

FBCB2 consists of a tactical computer with display, information software that provides a common set of messages and screens, interfaces with platform sensors, and a supporting communication infrastructure that allows for on-the-move operations. FBCB2 will provide friendly and enemy situational awareness, shorten planning time, and allow forces to operate at a high tempo.

To further assist the commander in command and control we are developing two new vehicles. The first of these is the Command and Control Vehicle (C2V), a program that resulted in response to the deficiencies the M577 demonstrated during Operation Desert Storm.

The C2V is an MLRS derivative chassis that provides increased mobility, and a tailorable command and control mission module that provides a working environment for the staff. The system has its own 43KW primary power unit, 40,000 BTU heating and cooling environmental control unit, and an NBC overpressure system. A 10-meter, telescoping mast antenna enables the crew to quickly increase its communication systems range while at the halt. The C2V has a unique inter/intra communications capability which allows staff officers to communicate digitally or by voice from one workstation to another within the same vehicle or between vehicles via a wireless local area network, as long as vehicle separation distance does not exceed 500 meters. The mission module is designed to be reconfigurable so that various arrangements of computers and radios may be assembled for a battalion, brigade, or higher staff.

The second system is the Battle Command Vehicle (BCV). This is intended to be either a Bradley or Abrams Battalion Task Force Commander's vehicle with enhanced digital communications and space for a staff officer/NCO.

In the force design and structure arena, we are examining — together with the other TRADOC centers — alternative organizations. Smaller, more effective organizations will make the mounted force more deployable and more agile.

Two BCV prototypes were evaluated for their conceptual usefulness during the recent Army warfighting exercise at the NTC. The BCV has merit, and we will continue to refine the concept with several focused experiments. Together, the C2V and BCV will provide maneuver commanders and their battle staffs with highly mobile, survivable platforms, adaptable to being configured with the most current state-of-the-art automation and communications suites.

Another key part of the Armor Force Modernization Strategy is Mounted Warrior. This program addresses current deficiencies with command and control, chemical, clothing, and equipment worn by all combat vehicle crewmen. Mounted Warrior is an integrated ensemble composed of modular subsystems. The complete ensemble will allow unrestricted movement, dexterity and tactility, provide NBC protection, and provide laser eye protection. Mounted Warrior will leverage host platform capabilities, such as sensors, computers, or radios, to enhance the armored crewman's performance. An affordable head-up display that may be used by multiple vehicles is an example of a Mounted Warrior component.

In the force design and structure arena, we are examining — together with the other TRADOC centers — alternative organizations. Smaller, more effective organizations will make the mounted force more deployable and more agile. Three division alternatives are currently undergoing analysis. Briefly, the first design reduces many organizations currently within the division to arrive at a division strength of about 15,000. This provides a benchmark as to the effectiveness of new systems and operational changes, relative to the current division. It is also the organization chosen for the Division Advanced Warfighting Experiment this fall. The second alternative features two ground brigades and one robust aviation brigade. The third option is brigade-based. It has a relatively small division headquarters with three ground brigades, an aviation brigade, and DIVARTY — all with organic CS and CSS assets. Each division alternative features a scout or cavalry troop in every ground brigade, as well as an HHC and three companies in each maneuver battalion. Approval of a final design, which will most likely vary somewhat from the three described above, is expected early next year.

The introduction of these various initiatives into the force must be preceded by the intellectual foundation in doctrine and training that gives leaders and soldiers the capability to exploit materiel and organizations, but more of that in a future article. We are excited about the future and confident of our success.

Forge the Thunderbolt!